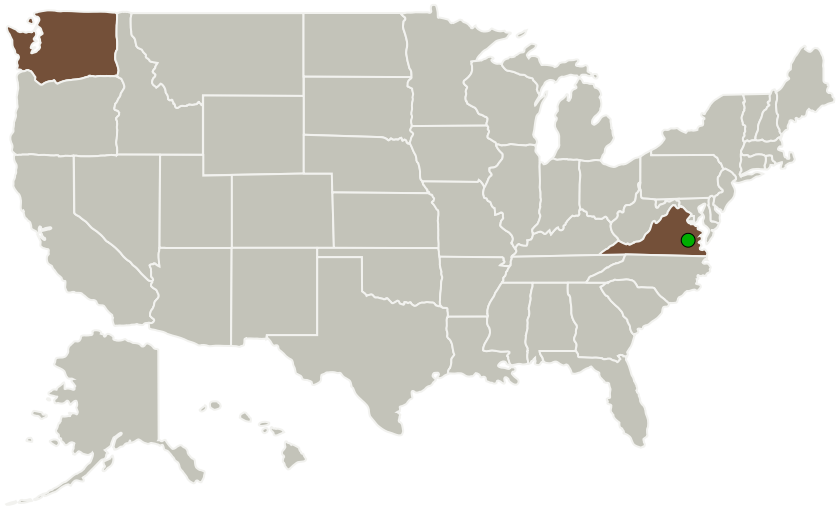
Precision Eddy Current Sensor for Nondestructive Evaluation of Spacecraft Structures, Phase I

Completed Technology Project (2016 - 2016)

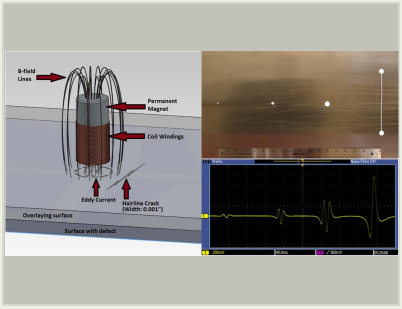
Project Introduction

NASA develops and manufactures complex high-performance structures for space applications. In order to mitigate risk to equipment and crew, NASA needs nondestructive evaluation (NDE) techniques and sensors that are capable of detecting cracks and corrosion of structures when these defects reside below conducting and non-conducting surfaces. Eagle Harbor Technologies, Inc. (EHT) is developing an eddy current NDE tool based their high gain integrator developed for fusion science applications. The high gain integrator sensitivity is comparable with superconducting quantum interference devices (SQUIDS), without the need for low temperature components. EHT proposes further evaluation and optimization to produce a NDE for NASA applications.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Eagle Harbor Technologies, Inc.	Lead Organization	Industry Veteran-Owned Small Business (VOSB)	Seattle, Washington
Langley Research Center(LaRC)	Supporting Organization	NASA Center	Hampton, Virginia



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Primary U.S. Work Locations	
Virginia	Washington

Project Transitions

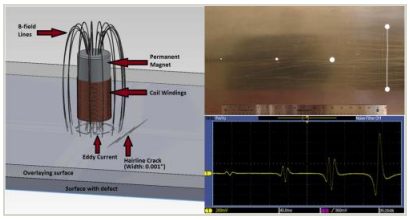
June 2016: Project Start

December 2016: Closed out

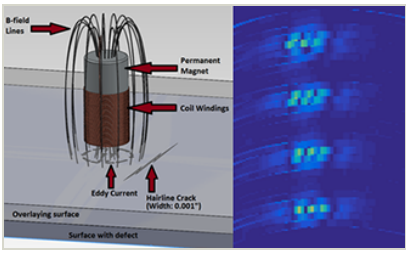
Closeout Documentation:

- Final Summary Chart*(https://techport.nasa.gov/file/139757)*

Images



Briefing Chart Image
Precision Eddy Current Sensor for Nondestructive Evaluation of Spacecraft Structures, Phase I *(https://techport.nasa.gov/image/127244)*



Final Summary Chart Image
Precision Eddy Current Sensor for Nondestructive Evaluation of Spacecraft Structures, Phase I Project Image *(https://techport.nasa.gov/image/135778)*

Organizational Responsibility

Responsible Mission Directorate:
Space Technology Mission Directorate (STMD)

Lead Organization:
Eagle Harbor Technologies, Inc.

Responsible Program:
Small Business Innovation Research/Small Business Tech Transfer

Project Management

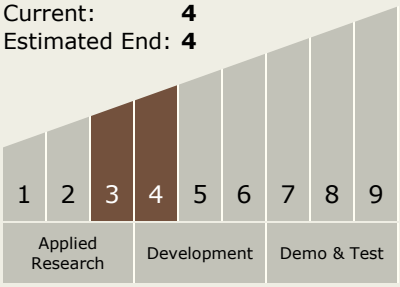
Program Director:
Jason L Kessler

Program Manager:
Carlos Torrez

Principal Investigator:
Kenneth E Miller

Technology Maturity (TRL)

Start: **3**
Current: **4**
Estimated End: **4**



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Completed Technology Project (2016 - 2016)

Technology Areas

Primary:

- TX08 Sensors and Instruments
  - TX08.1 Remote Sensing Instruments/Sensors
    - TX08.1.1 Detectors and Focal Planes

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System